

Remarks

After entry of the present Amendment, claims 15 and 17-37 are pending in the present application. Claim 16 was previously cancelled. Claim 15 has been amended through the present Amendment. Claims 33-37 have been added as part of the present Amendment. New claims 33-37 are novel and non-obvious over the prior art. Support for claims 33-36 is found specifically on page 3 lines 1-11 of the present application as filed and is also found throughout the text and figures of the present application as filed. Support for claim 37 is found specifically beginning on page 5, line 17. No new matter has been added through the present Amendment.

Claims 15, 17-23, 25-29, 31, and 32 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 6,340,053 to Wu et al. Claim 24 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Wu et al. in light of United States Patent No. 5,628,206 to Baba. Claim 30 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Wu et al.

With respect to the rejection under 35 U.S.C. §102(b) relying on Wu et al., the Applicants have amended independent claim 15 and submit that the claimed invention of amended claim 15, is distinguishable over Wu et al. As the Examiner is well aware, to properly establish anticipation under 35 U.S.C. §102, the reference must teach each and every element of the rejected claim. See MPEP 2131.

Independent claim 15 has been amended to clarify that the groups or subgroups form at least two fluid passes for each of the refrigerating and cooling fluids. Further, independent claim 15 has been amended to require that “the main-section plates define an inlet for each of the flow channels, respectively, and an outlet for each of the flow channels, respectively.” In other words, the main-section plates define a plurality of inlets and a plurality of outlets with one inlet and one outlet dedicated to one flow channel. Independent claim 15 has also been amended to require “one of the fluid passes defined *in one direction*

from the inlet to the outlet of one of the respective flow channels.” (emphasis added) Wu et al. fails to disclose a fluid pass defined along one direction from the inlet to the outlet. To the contrary, Wu et al. discloses, in Column 6, lines 24-26, that U-shaped flow passages are formed between the plates, i.e., fluid flows in at least two directions as it flows through the U-shaped flow passages. Specifically, the plates define fluid ports 84 and 85 adjacent to each other and define fluid ports 86 and 87 adjacent to each other. Fluid flows in the U-shaped flow passages of Wu et al. between adjacent fluid ports 84 and 85 or between adjacent fluid ports 86 and 87. As such, Wu et al. fails to disclose a fluid pass defined along one direction from the inlet to the outlet as claimed in amended claim 15 of the present application. Wu et al., therefore, does not disclose each and every element of amended claim 15 and cannot properly anticipate this claim.

Further, as stated in the response to the office action dated April 26, 2007, it is clear that independent claim 15 is directed toward a “motor vehicle condenser.” The Examiner states that “the heat exchanger of Wu et al is capable of being used as a condenser in a refrigeration system.” The Examiner is incorrect. Motor vehicle condensers are known in the art and, as discussed beginning on page 7, line 34 of the present application as filed, motor vehicle condensers exchange heat between refrigerating fluid and a cooling fluid, such as atmospheric air or, more applicably, water from the engine cooling circuit. More specifically, it is widely known that motor vehicle condensers cool the refrigerating fluid, which is in a gaseous state, to condense the refrigerating fluid. During this heat exchange process, the condenser is subjected to very high pressure, e.g., greater than 100 bars, and the condenser must be designed to withstand such pressures. In contrast, the heat exchanger disclosed and taught in Wu et al. merely exchanges heat between oil and water. A heat exchanger that exchanges heat between oil and water is not subject to the very high pressures that the “vehicle motor condenser” of claim 15 is subjected to. As such, it is clear that Wu et al. does not anticipate a “motor vehicle condenser” as required by independent claim 15. For this reason also, Wu et al. does not anticipate the motor vehicle condenser claimed in

independent claim 15 and the Examiner's §102 rejection is improper. In view of the argument set forth above and the lack of disclosure and teaching by Wu et al., the rejection of claims 24 and 30 under §103 also lack support.

In addition to the arguments set forth above, the Examiner has failed to clearly articulate the basis for the rejection of several dependent claims. The Examiner has failed to articulate the basis because Wu et al. fails to disclose or teach these limitations required by these dependent claims. As one example, both of claims 21 and 31 require "the cross section of the passes diminishing from the inlet pass towards the outlet pass." This limitation is not disclosed by Wu et al. As another example, claim 27 requires that "the hydraulic diameter of the flow channels for the fluids (F1 and F2) is between 0.1 mm and 3 mm." Again, Wu et al. does not disclose this limitation. As such, the Examiner has improperly rejected these dependent claims under 35 U.S.C. §102(b) and these rejections should be removed. Further, each of these dependent claims are non-obvious over the prior art.

Further, in addition to the novel limitation claimed in amended claim 15, new dependent claims 33-37 set forth additional novel elements. Specifically, claim 33 claims that the inlet and the outlet are spaced from each other at longitudinally spaced opposing ends of the main-section plates. As discussed above, in Wu et al., the inlet and the outlet are adjacent each other such and the flow passages are U-shaped from the inlet to the outlet. Claims 34-36 further define the fluid passes. Claim 37 depends directly from claim 15 and claims the hydraulic diameter of the flow channels as being between 0.1 mm and 3 mm. As discussed above, this limitation is not disclosed in Wu et al.

In view of the foregoing, it is respectfully submitted that independent claim 15 and the claims that depend therefrom, are both novel and non-obvious such that these claims are in condition for allowance, which allowance is respectfully requested. The Commissioner is authorized to charge our Deposit Account No. 08-2789 in the name of Howard & Howard Attorneys, P.C. for any fees or credit the account for any overpayment for this matter.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS, P.C.

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/Christopher M. Francis/

Christopher M. Francis, Registration No. 59,511
The Pinehurst Office Center
39400 Woodward Avenue, Suite 101
Bloomfield Hills, MI 48304-5151
(248) 723-0392